

CLAIMS

1. A method for the early determination of the risk of mortality of patients in intensive care units or emergency care units, wherein the concentration of Cu/Zn superoxide dismutase (Cu/Zn SOD or SOD-1) is selectively determined in a serum or plasma sample of such a patient, and concentrations which are above a predetermined cut-off are correlated with a high risk of mortality.
2. The method as claimed in claim 1 wherein the patients are patients in intensive care units for whom the clinical diagnosis is sepsis, severe sepsis or septic shock.
3. The method as claimed in claim 1 or 2, wherein the method for the determination of the Cu/Zn SOD concentrations is an immunochemical assay method selective for Cu/Zn SOD.
4. The method as claimed in claim 3, wherein the selective immunochemical determination method is a ligand binding assay of the competitive type or sandwich type.
5. The method as claimed in any of claims 1 to 4, wherein the correlation between the Cu/Zn SOD concentration present in the serum or plasma sample and the cut-off is established by a quantitative or semi-quantitative concentration determination.
6. The method as claimed in claim 4 or 5, wherein the ligand binding assay is a homogeneous or heterogeneous immunoassay of the sandwich type, in which at least one marked monoclonal or polyclonal antibody is used for detecting Cu/Zn SOD and the marking is selected from radioisotope, fluorescence, chemiluminescence, enzyme and direct optically detectable dye particles.
7. The method as claimed in any of claims 1 to 6, wherein a value of 310 ng/ml or more is chosen as the optimal cut-off for the measured Cu/Zn SOD concentration.

8. The method as claimed in any of claims 1 to 7, which is carried out as part of a multiparameter determination in which a quantitative or qualitative determination of at least one further sepsis prognosis parameter is effected at the same time.

9. The method as claimed in claim 8, wherein at least one further parameter which is selected from the group which consists of procalcitonin, CA 19-9, CA 125, S100B, S100A proteins, soluble cytokeratin fragments, in particular CYFRA 21, TPS and/or soluble cytokeratin-1 fragments (sCY1F), the peptides inflammin, CHP, LASP-1, GNAT, mutarotase, CPS 1 and the peptide prohormones proANP, proBNP, proADM and the C-reactive protein (CRP) is determined as part of the multiparameter determination in addition to Cu/Zn SOD.

10. The method as claimed in claim 8 or 9, wherein the multiparameter determination is effected as a simultaneous determination by means of a chip technology measuring apparatus or an immunochromatographic measuring apparatus.

11. The method as claimed in claim 10, wherein the evaluation of the complex result of the measurement obtained using the measuring apparatus is effected with the aid of a computer program.

12. The method as claimed in any of claims 1 to 5, which is carried out as an immunochromatographic point-of-care method (accelerated test).